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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/508,813	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	Nathan K. Tyler	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *23092004; 28082006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

3. Claims 25-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 25 recites a "broadcast content" which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

4. Claims 42-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 42-44 define a "program" embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed "program" can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 3, 7, 9, 15, 17, 18, 20-28, 42, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Mixer, Jr. (US 7246348 B1).

Regarding **claim 1**, Mixer discloses a receiving apparatus comprising: a reception unit (Fig. 2, numeral 75 "I/O Interface") operable to receive externally: (i) update data for updating a firmware of the printing apparatus ("an input output (I/O) interface 75 for receiving print job files" at column 3, line 13. "In accordance with the teachings of this invention a print job file may also include new microcode, also referred to as a microcode update, for updating or extending the current microcode in the non-volatile memory" at column 4, line 14); and (ii) a display content which includes a description indicating that the update data is to be printed (Fig. 5, numerals 165 and 170 "status page descriptors"); a display unit operable to display the display content (Fig. 1, numeral 37. Although it is not explicitly disclosed that display 37 displays the display content, the "user interface 70 for receiving user inputs and for displaying messages and status to a user" at column 3, line 12. Mixer also refers to Fig. 6, the printed display content, as a "status page." Therefore, since the display is capable of displaying status to the user, the display is operable to display the display content); a command obtainment unit operable to obtain a print command for the display content (Fig. 2, numeral 50 "processor." See Fig. 5, numeral 190 "suppress status page"); and an output unit operable to output the update data as data to be printed, according to the description, when the command obtainment unit obtains the print command (Fig. 2, numeral 65 "printing engine").

Regarding **claim 2**, Mixer discloses that the update data is data that is not to be displayed but to be printed only (As shown above, the update data is not displayed).

Regarding **claim 3**, Mixer discloses that the output unit does not output the display content to the printing apparatus (As shown in Fig. 5 "suppress status page," it is possible to withhold the display data from the printing apparatus).

Regarding **claim 7**, Mixer discloses that the update data is difference information indicating a difference between the firmware of an older version and the firmware of a present version ("A bit flag of 02 hex directs the current microcode to create a file using the target location path 230 as the path and filename. A bit flag of 04 hex directs the current microcode to delete the file found at the target location path 230. A bit flag of 08 hex directs the current microcode to create a directory using the target location path 230..." at column 5, line 42), and the output unit outputs the update data to the printing apparatus after linking the update data with the firmware of an older version (see grounds for rejection for claim 1).

Regarding **claim 9**, Mixer discloses a receiving apparatus including a printing apparatus and the receiving apparatus, said receiving apparatus comprising: a reception unit (see grounds for rejection for claim 1) operable to receive externally: (i) print data which is not to be displayed (see grounds for rejection for claim 2); and (ii) update data for updating a firmware of the printing apparatus (see grounds for rejection for claim 1); and an output unit operable to output the print data to the printing apparatus, wherein the output unit outputs the update data as the print data (update data is printed as shown in Fig. 6).

Regarding **claim 15**, Mixer discloses a receiving apparatus comprising a reception unit operable to receive print data which is not to be displayed but to be printed only (see grounds for rejection for claim 2); and an output unit operable to output the print data to the printing apparatus without displaying the print data (see grounds for rejection for claims 1 and 2), when

receiving a print command for the print data (print command generated at Fig. 8, numeral C "send to printer..."), wherein the reception unit receives update data for updating a firmware of the printing apparatus, as the print data (see grounds for rejection for claim 1), and the output unit outputs, the update data, to the printing apparatus, as the print data, according to the print command (see grounds for rejection for claim 1).

Regarding **claim 17**, Mixer discloses a printing apparatus comprising an obtainment unit operable to obtain print data from a receiving apparatus (Fig. 2, numeral 50 "processor" receives print data from receiving apparatus numeral 75 "I/O Interface"); a judgment unit operable to judge whether or not update data for updating a firmware of the printing apparatus is included in the obtained print data ("In accordance with the teachings of this invention a print job file may also include new microcode, also referred to as a microcode update, for updating or extending the current microcode in the non-volatile memory 60. The current microcode in the non-volatile memory 60 is assumed to include routines for receiving a print job file 97 into volatile memory 55, recognizing the print job file 97 as including a microcode update, and then performing operations based on information in the microcode update" at column 4, line 14); and an updating unit operable to update the firmware based on the update data when the judgment unit judges that the update data is included in the print data ("...recognizing the print job file 97 as including a microcode update, and then performing operations based on information in the microcode update" at column 4, line 20).

Regarding **claim 18**, Mixer discloses that the obtainment unit does not accept an input of another print data from the receiving apparatus while the updating unit updates the firmware based on the update data ("If the microcode update file includes a new executable there is also an

option available to allow the new executable to download the remainder of the print job file... if bit 0=0, the option is not active, and all other bits are ignored" at column 6, line 21. Therefore when this option is set all print job data is ignored while the update is performed).

Regarding **claim 20**, Mixer discloses that the print data includes an identifier indicating whether or not the update data is included in the print data, and the judgment unit judges, based on the identifier, whether or not the update data is included in the print data ("FIG. 5 shows a diagram of a presently preferred embodiment of the file header 100 for the print job file 97. The first nine bytes 115 of the file header 100 include a known indicator of the start of the print job file known as "User Exit Language." The next seven bytes 120 are known as lead-in and include three hexadecimal characters and the four letters "C", "O", "D", and "E". Upon identifying the first 16 bytes as having this particular structure, the processor recognizes that a microcode update file is included in the print job file" at column 4, line 35).

Regarding **claim 21**, Mixer discloses that a file name for specifying a file which is either to be printed or to be updated for the update of the firmware is included in the print data, and the judgment unit judges whether or not the update data is included in the print data, based on the file name ("The next seven bytes 120 are known as lead-in and include three hexadecimal characters and the four letters "C", "O", "D", and "E". Upon identifying the first 16 bytes as having this particular structure, the processor recognizes that a microcode update file is included in the print job file" at column 4, line 39).

Regarding **claim 22**, Mixer discloses that the print data includes: a file name for specifying a file which is either to be printed or to be updated for the update of the firmware; and an identifier indicating whether or not the update data is included in the print data (see Fig. 5.

The identifier is <ESC><SOH><STX> and the files name is "CODE"), and the judgment unit judges whether or not the update data is included in the print data, based on both the file name and the identifier. "Upon identifying the first 16 bytes as having this particular structure, the processor recognizes that a microcode update file is included in the print job file" at column 4, line 39).

Regarding **claim 23**, Mixer discloses a version information output unit operable to output information related to a version of the firmware (Fig. 5 Header bytes 16-34 "version").

Regarding **claim 24**, Mixer discloses that the update data is difference information indicating a difference between the firmware of an older version and the firmware of a present version, and the updating unit performs the update by linking the update data and the firmware of an older version (see grounds for rejection for claim 7).

Regarding **claim 25**, Mixer discloses a computer-readable storage medium in which a broadcast content is stored (see Fig. 2, print job data is downloaded into memories 55 or 60), wherein the broadcast content includes: update data for updating a firmware of a printing apparatus (see grounds for rejection for claim 1); and a display content which includes a description indicating that the update data is to be printed (see grounds for rejection for claim 1).

Regarding **claim 26**, Mixer discloses that in the update data, an identifier is described, said identifier indicating that the update data is data for updating the firmware (see grounds for rejection for claim 22).

Regarding **claim 27**, Mixer discloses that the update data is included in the broadcast content, as a data file whose name indicates that the update data is for updating the firmware (see grounds for rejection for claim 22).

Regarding **claim 28**, Mixer discloses a server comprising: a content generation unit operable to generate a content that includes a firmware update file (see Fig. 8, steps A and B), as a print content which is not to be displayed (As shown in Fig. 8, nowhere is the print content displayed), said file being a file in which data for updating a firmware of the printing apparatus is described ("microcode update" in Fig. 8); and a content sending unit operable to send the generated content to the receiving apparatus (Fig. 8, step C "send to printer...").

Regarding **claim 42**, Mixer discloses a program (Fig. 2, microcode stored in non-volatile memory 60) causing a computer to execute: a content generation step of generating a content that includes a firmware update file, as a print content which is not to be displayed, said file being a file in which data for updating a firmware of the printer is described (Fig. 8, step B); and a content sending step of sending the generated content to the receiving apparatus (Fig. 8, step C).

Regarding **claim 44**, Mixer discloses a program causing a computer to execute: a judgment step of judging whether or not the print content outputted by the receiving apparatus is a firmware update file; an updating step of updating the firmware using the print content, in the case where the print content is a firmware update file according to the judgment; and a printing step of printing the print content in the case where the print content is not a firmware update file according to the judgment (see grounds for rejection for claim 30).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Mixer and Murata (US 6111659 A).

Regarding **claims 4 and 19**, Mixer does not explicitly disclose that the output unit outputs the update data to the printing apparatus via a removable storage medium.

Murata teaches a printing device capable of receiving print jobs via a removable storage medium ("By storing the image data of a document and output control data (print job command file) into the removable storage medium using a user's personal computer, and installing this storage medium in PC card slot 89 of the digital copying machine, the image data stored in the storage medium can be printed offline" at column 9, line 5).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the printing apparatus disclosed by Mixer to receive print job files via removable storage medium as taught by Murata, so that print jobs files could be sent to the printer from computers without a physical (network) connection to the printer ("Even if the

external equipment is not connected to a LAN as in the case of a portable note-type computer, offline print can be readily performed using the memory card" at Murata column 9, line 15).

9. Claims 5, 6, 8, 10-14, 16, 30-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Mixer and Weyand et al. (US 6930785 B1).

Regarding **claim 5**, Mixer does not disclose that the output unit outputs the update data to the printing apparatus after confirming that a version of the firmware installed in the printer is not the latest.

Weyand teaches comparing the installed version of a firmware in a printer to the version being used for an update, and only performing the update if the updated version is newer than the installed version ("The downloaded information is compared to existing firmware at point 34, in order to determine whether or not the upgrade is needed. If the existing firmware is the latest version, the update flag is re-set at point 38" at column 3, line 57. See Fig. 2).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to only output the update data to the printing apparatus as disclosed by Mixer after confirming that the version of the firmware installed in the printer is not the latest as taught by Weyand in order to avoid an unintentional firmware downgrade.

Regarding **claim 6**, the combination of Mixer and Weyand discloses that the output unit obtains, from the printing apparatus, information for specifying the version of the firmware installed in the printing apparatus, and confirms that the version of the firmware is not the latest, based on the obtained information (see grounds for rejection for claim 5).

Regarding **claim 8**, Mixer does not explicitly disclose that the reception unit further includes a request unit operable to request a specified server to send, via a communication line, the update data and the display content, and receives, from the server via the communication line, the requested update data and display content.

Weyand teaches requesting a firmware upgrade from a server via a communication line ("An automatic remote firmware update mechanism is adapted to selectively and automatically retrieve firmware upgrade information from the remote source of information via the communications device" at column 2, line 2).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to request the firmware upgrade disclosed by Mixer from a server as taught by Weyand, so that the firmware upgrade could be hosted on a commonly known and easily implemented server, such as a web server ("The communications device can be provided as a modem adapted to connect to, and access information from, a web site" at Weyand column 2, line 11).

Regarding **claim 10**, while Mixer discloses a display unit operable to display status information to the user, Mixer does not explicitly disclose that the reception unit further includes a display content reception unit operable to receive a display content which includes instruction information for urging a user to update the firmware of the printing apparatus; and a display unit operable to display the instruction information, and the output unit outputs the update data as the print data based on a print command inputted from the user according to the displayed instruction information.

Weyand teaches displaying an instruction for urging a user to update the firmware of a printing device, and waiting for confirmation from the user before performing the firmware update ("Alternatively, a notice requesting user permission to install the upgrade could be generated between points 36 and 40").

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the firmware update system disclosed by Mixer to request user confirmation before performing a firmware update as taught by Weyand, so that all firmware updates could be approved by a system administrator.

Regarding **claim 11**, the combination of Mixer and Weyand as applied to claim 10 discloses a receiving apparatus comprising a reception unit operable to receive: (i) update data for updating a firmware of the printing apparatus (see grounds for rejection for claim 1); and (ii) a display content (see grounds for rejection for claim 1) which includes instruction information for urging a user to update the firmware (see grounds for rejection for claim 10); a display unit operable to display the instruction information (see grounds for rejection for claim 1); a command obtainment unit operable to obtain a command to update the firmware, sent from the user based on the displayed instruction information, as a print command for the update data (see grounds for rejection for claim 10); and an output unit operable to output the update data to the printing apparatus when the print command is obtained (see grounds for rejection for claim 1).

Regarding **claim 12**, Mixer discloses that the output unit is a unit operable to send print data to the printing apparatus, and sends the update data as the print data (see grounds for rejection for claim 1).

Regarding **claim 13**, Mixer discloses that the display unit does not display the update data (see grounds for rejection for claim 2).

Regarding **claim 14**, the combination of Mixer and Weyand as applied to claim 10 above discloses a receiving apparatus comprising a reception unit operable to receive: (i) update data for updating a firmware of the printing apparatus (see grounds for rejection for claim 1); and (ii) a display content which includes a description indicating that the update data is to be printed (see grounds for rejection for claim 1) and instruction information for urging a user to update the firmware of the printing apparatus (see grounds for rejection for claim 10);

a display unit operable to display the instruction information out of the display content (see grounds for rejection for claim 10); a command reception unit operable to receive a print command (print command generated at Mixer Fig. 8, numeral C "send to printer..."); a command obtainment unit operable to obtain a command to update the firmware, sent from the user based on the displayed instruction information, as a print command for the update data (see grounds for rejection for claim 10); and an output unit operable to output print data to the printing apparatus when the print command is received by the command reception unit, and to output the update data to the printing apparatus based on the description when the print command is obtained by the command obtainment unit (see grounds for rejection for claim 1).

Regarding **claim 16**, the combination of Mixer and Weyand as applied to claim 10 above discloses a receiving apparatus comprising a reception unit operable to receive: (i) update data for updating a firmware of the printing apparatus (see grounds for rejection for claim 1); and (ii) a display content (see grounds for rejection for claim 1) which includes instruction information for urging a user to update the firmware of the printing apparatus (see grounds for rejection for claim 10); a display unit operable to display the instruction information (see grounds for rejection for claim 1); and a command obtainment unit operable to obtain a command to update the firmware of the printing apparatus, sent from the user based on the displayed instruction information, as a print command for the update data (see grounds for rejection for claim 10).

Regarding **claims 30 and 36**, the combination of Mixer and Weyand as applied to claim 10 above discloses a firmware updating system and corresponding method comprising a server that distributes a content (Fig. 2, numeral 80), a receiving apparatus that receives the content from the server (Fig. 2, numeral 75), and a printing apparatus (Fig. 2, numeral 47) that operates according to a firmware stored in a ROM ("the non-volatile memory 60 includes programs, and in particular includes microcode for directing the activities of the processor" at Mixer column 3, line 36) and prints a print content inputted from the receiving apparatus (see grounds for rejection for claim 1), wherein the server includes: a content generation unit operable to generate a content that includes a firmware update file, as a print content which is not to be displayed, said file being a file in which data for updating a firmware of the printing apparatus is described; and a content sending unit operable to send the generated content to the receiving apparatus (see grounds for rejection for claim 28), the receiving apparatus includes: a content reception unit

operable to receive the content from the receiving apparatus (Fig. 2, numeral 75); a print instruction obtainment unit operable to obtain, from a user, an instruction to print a print content (see grounds for rejection for claim 10); and a print output unit operable to output, to the printing apparatus, the print content included in the received content, without performing processing related to display, when the print instruction is obtained (see grounds for rejection for claim 1), and the printing apparatus includes: a judgment unit operable to judge whether or not the print content outputted by the receiving apparatus is a firmware update file (see grounds for rejection for claim 17); an updating unit operable to update the firmware using the print content (see Fig. 8, steps E-I), in the case where the print content is a firmware update file according to the judgment; and a printing unit operable to print the print content in the case where the print content is not a firmware update file according to the judgment (As shown above, the firmware update is contained in a print job file. If it is judged that the print job contains a firmware update, update processing is performed. If there is no update contained in the print job file, it is treated as a standard print job).

Regarding **claims 31 and 37**, Mixer discloses that the judgment unit searches for a firmware update command described in the print content, and judges said print content as a firmware update file, in a case where the firmware update command is found ("FIG. 5 shows a diagram of a presently preferred embodiment of the file header 100 for the print job file 97. The first nine bytes 115 of the file header 100 include a known indicator of the start of the print job file known as "User Exit Language." The next seven bytes 120 are known as lead-in and include three hexadecimal characters and the four letters "C", "O", "D", and "E". Upon identifying the

first 16 bytes as having this particular structure, the processor recognizes that a microcode update file is included in the print job file" at column 4, line 35).

Regarding **claim 32 and 38**, Mixer discloses that the print output unit outputs, to the printing apparatus, the print content together with a file name of said print content, and the judgment unit judges the print content to be a firmware update file, in a case where the file name of the print content outputted by the receiving apparatus is a file name specified in advance (see grounds for rejection for claim 31, filename is "CODE").

Regarding **claim 33 and 39**, Mixer discloses that the judgment unit further has a confirmation unit operable to search for a firmware update command described in the print content, and confirm that said print content is a firmware update file, in a case where the firmware update command is found (see Fig. 5, update command is <ESC><SOH><STX>), and the updating unit updates the firmware using the print content, after the confirmation (see grounds for rejection for claim 31).

Regarding **claim 34 and 40**, Mixer discloses that the receiving apparatus further includes a content storage unit operable to store each received content in a specified area (see Fig. 8, content is downloaded to volatile memory), and the updating unit further includes a file obtainment unit operable to obtain, from the specified area in the content storage unit, another firmware update file specified in the print content (As shown in Fig. 4, the firmware update contains multiple modules, as specified in the head as shown in Fig. 5), and updates the firmware using data included in the obtained file (Fig. 8, steps H, I).

Regarding **claim 35 and 41**, Mixer discloses that the printing apparatus further includes a firmware storage unit having two ROMs (As shown in Fig. 2, there are multiple ROMs: boot

ROM 61, and one or multiple memories 62), and operates according to a firmware stored in one ROM (the system will operate according to code stored in "boot ROM"), and the updating unit updates the firmware of the printing apparatus by storing a firmware whose version is updated in the other ROM (firmware is updated in memory 62).

Regarding **claim 43**, Mixer discloses a program causing a computer to execute: a content reception step of receiving the content from the receiving apparatus (see grounds for rejection for claim 30); a print instruction obtainment step of obtaining, from a user, a print instruction for the print content (see grounds for rejection for claim 10); and a print output step of outputting, to the printing apparatus, the print content included in the received content, without performing processing related to display, when the print instruction is obtained (see grounds for rejection for claim 1).

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Mixer and Shimamura (US 20010003827 A1).

Regarding **claim 29**, while Mixer discloses a server which attaches a firmware update to a print job file and sends the print job file to a receiving apparatus, Mixer does not disclose a server comprising: an e-mail generation unit operable to generate an e-mail to which a firmware update file is attached as print data which is not to be displayed, said file being a file in which data for updating a firmware of the printing apparatus is described; and an e-mail sending unit operable to send the generated e-mail to the receiving apparatus.

Shimamura teaches updating firmware by attaching the firmware update to an email and sending the email to a printing device (see Fig. 9, UPDATE FIRMWARE email with firmware update file attached).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the firmware update server disclosed by Mixer to send the firmware update via email as taught by Shimamura, as printers are often attached to the internet through a LAN, and email provides easy remote access ("many users have peripherals attached to LANs and they can make use of e-mail via the LAN and the Internet, so that maintenance companies can access peripheral devices of those users via of e-mail easily" at Shimamura paragraph [0018]).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan K. Tyler whose telephone number is 571-270-1584. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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